

CLAIMS

What is claimed is:

- 1 1. An electronic system, comprising:
2 an electronics unit;
3 a temperature control logic coupled to said electronics unit; and
4 a fan coupled to said temperature control unit;
5 wherein said temperature control unit is capable of implementing a plurality of temperature
6 control protocols, each protocol effecting the speed of said fan; and
7 wherein said temperature control unit implements a first temperature control protocol upon
8 system initialization and changes to a second temperature control protocol if said
9 electronics unit asserts a temperature signal, said first temperature control protocol
10 being quieter on average than said second temperature control protocol.
- 1 2. The system of claim 1 wherein said temperature control unit implements a third
2 temperature control protocol that is louder than said second temperature control protocol.
- 1 3. The system of claim 2 wherein said second temperature control protocol is implemented
2 the first time the temperature signal is asserted and the third temperature control protocol is
3 implemented the second time the temperature signal is asserted.
- 1 4. The system of claim 1 wherein said first temperature control protocol comprises a single
2 fan speed that does not change with temperature.

1 5. The system of claim 1 wherein said first temperature control protocol comprises at least
2 two fan speeds, a higher fan speed being selected when the temperature, recorded by a temperature
3 sensor, exceeds a first temperature threshold and a lower fan speed selected when the temperature
4 is below the first temperature threshold.

1 6. The system of claim 5 wherein said second temperature control protocol comprises at least
2 two fan speeds, a higher fan speed being selected when the temperature, recorded by a temperature
3 sensor, exceeds a second temperature threshold and a lower fan speed selected when the
4 temperature is below the second temperature threshold, said second temperature threshold being
5 less than the first temperature threshold.

1 7. A computer system, comprising:
2 a CPU;
3 a fan controller coupled to said CPU; and
4 a fan coupled to said fan controller;
5 wherein said CPU is capable of implementing a plurality of temperature control protocols,
6 each protocol effecting the speed of said fan; and
7 wherein said CPU implements a first temperature control protocol upon system
8 initialization and changes to a second temperature control protocol if said
9 electronics unit asserts a temperature signal, said first temperature control protocol
10 being quieter on average than said second temperature control protocol.

1 8. The system of claim 7 wherein said CPU implements a third temperature control protocol
2 that is louder than said second temperature control protocol.

1 9. The system of claim 8 wherein said second temperature control protocol is implemented
2 the first time the temperature signal is asserted and the third temperature control protocol is
3 implemented the second time the temperature signal is asserted.

1 10. The system of claim 7 wherein said first temperature control protocol comprises a single
2 fan speed that does not change with temperature.

1 11. The system of claim 7 wherein said first temperature control protocol comprises at least
2 two fan speeds, a higher fan speed being selected when the temperature, recorded by a temperature
3 sensor, exceeds a first temperature threshold and a lower fan speed selected when the temperature
4 is below the first temperature threshold.

1 12. The system of claim 11 wherein said second temperature control protocol comprises at
2 least two fan speeds, a higher fan speed being selected when the temperature, recorded by a
3 temperature sensor, exceeds a second temperature threshold and a lower fan speed selected when
4 the temperature is below the second temperature threshold, said second temperature threshold
5 being less than the first temperature threshold.

1 13. The system of claim 7 wherein said CPU internally monitors its temperature and asserts the
2 temperature signal which indicates the CPU's internal temperature has reached a threshold.

1 14. A method of controlling temperature in an electronic system, comprising:
2 (a) initializing the system to a first temperature control protocol;
3 (b) determining that a temperature associated with the electronic system has reached a
4 threshold; and
5 (c) switching from the first temperature control protocol to a second temperature control
6 protocol, said first temperature control protocol being quieter on average than said
7 second temperature control protocol.

1 15. The method of claim 14 further including switching to a third temperature control protocol
2 that is louder than said second temperature control protocol.

1 16. The method of claim 15 wherein switching to the third temperature control protocol occurs
2 if it is determined that the threshold has again been reached.

1 17. The method of claim 14 wherein said first temperature control protocol comprises a single
2 fan speed that does not change with temperature.

1 18. The method of claim 14 wherein said first temperature control protocol comprises at least
2 two fan speeds, a higher fan speed being selected when the temperature, recorded by a temperature
3 sensor, exceeds a first temperature threshold and a lower fan speed selected when the temperature
4 is below the first temperature threshold.

1 19. The method of claim 18 wherein said second temperature control protocol comprises at
2 least two fan speeds, a higher fan speed being selected when the temperature, recorded by a
3 temperature sensor, exceeds a second temperature threshold and a lower fan speed selected when
4 the temperature is below the second temperature threshold, said second temperature threshold
5 being less than the first temperature threshold.

19. The method of claim 18 wherein said second temperature control protocol comprises at least two fan speeds, a higher fan speed being selected when the temperature, recorded by a temperature sensor, exceeds a second temperature threshold and a lower fan speed selected when the temperature is below the second temperature threshold, said second temperature threshold being less than the first temperature threshold.